IN THE CLAIMS

Please amend the claims as follows.

For the Examiner's convenience, a list of all claims is included below.

1-23   (Canceled)

24.   (Currently Amended) A computer system for dynamically and automatically loading and unloading a software library to and from memory in a computer, said software library including one or more library routines and capable of being referenced by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module; and

software to perform operations comprising

determining which libraries are potentially needed during execution of the application or other software module;

loading into memory a library loader for each potentially needed library, said loading occurring anytime before any library of the potentially needed library is executed by the application or other software module;

loading into memory a library implementation module for a software

library, said loading occurring prior to when a library routine of the software library

is to be executed by the application or other software module;

executing the loaded library implementation module for the library

routine being executed; and

automatically unloading from memory the library implementation

module after the execution of the library routine is completed while keeping the

library loader in memory until the execution of the application or the other software

module is completed, wherein the software library is scheduled to be unloaded

automatically without an explicit unload request from the application or other

software module.

25.   (Currently Amended) The computer system as defined in Claim 24 wherein

said loading of a library loader for each potentially needed library occurs either just

prior to or contemporaneous with the execution of the application or other software

module and wherein the software library is scheduled to be removed before the

execution of the library routine is completed.

26.   (Previously Presented) The computer system as defined in Claim 24

wherein said loading of a library loader for each potentially needed library occurs

after execution of the application or other software module begins but before any

library routine of the potentially needed library is executed by the application or

other software module.

27. (Currently Amended) A computer system for dynamically and automatically loading and unloading a software library to and from memory in a computer, said computer library including one or more library routines and capable of being referenced by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module; and

software to perform operations comprising

loading into memory a library implementation module for a software library, said loading occurring prior to when a library routine of the software library is to be executed by the application or other software module, said loading comprising

determining whether the library implementation module is in memory;

if the library implementation module is not in memory, then loading the library implementation module; and

if the library implementation module is in memory and scheduled to be unloaded from memory, then canceling the scheduled unloading of the library implementation module;

executing the loaded library implementation module for the library routine being executed; and

automatically scheduling the unloading of the library
implementation module <u>after the execution of the library routine is completed,</u>
<u>while keeping the library loader in memory until completion of the execution</u>
<u>application or the other software module</u>; and

unless the scheduled unload has been cancelled, automatically
unloading the library implementation module as scheduled, wherein the software
library is scheduled for unload and unloaded automatically without an explicit
unload request from the application or other software module.

28.   (Original) The computer system as defined in Claim 27 wherein said
loading of a library loader for each potentially needed library occurs either just
prior to or contemporaneous with the execution of the application or other software
module.

29.   (Previously Presented) The computer system as defined in Claim 27
wherein said loading of a library loader for each potentially needed library ocurs
after execution of the application or other software module begins but before any
library routine of the potentially needed library is executed by the application or
other software module.

30.   (Previously Presented) The computer system as defined in Claim 27
wherein said scheduling the unloading of the library implementation module
includes delaying the unloading of the library for a specified delay and unloading
the library implementation module upon completion of the delay.

31.   (Previously Presented) The computer system as defined in Claim 30 wherein said specified delay is a time delay.

32.   (Original) The computer system as defined in Claim 31 wherein time delay is fixed.

33.   (Original) The computer system as defined in Claim 31 wherein said time delay is variable.

34.   (Previously Presented) The computer system as defined in Claim 30 wherein said specified delay is based on system resources.

35.   (Previously Presented) The computer system as defined in Claim 27 wherein said scheduling the unloading of the library implementation module comprises comprises

setting an associated criteria;

unsetting an associated criteria of said scheduled unloading is cancelled; and

resetting the associated criteria of the library implementation module is again scheduled for unloading.

36.   (Currently Amended) A computer system for dynamically and automatically loading and unloading a software library to and from memory in a computer, said software library capable of being referenced by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module; and

software to perform operations comprising

loading a software library into memory; and

automatically unloading said software library from memory after completion of execution of said library routine, while keeping the library loader in memory until completion of the execution of the application or the other software module, wherein the software library is scheduled to be unloaded automatically without an explicit unload request from the application or other software module.

37.   (Previously Presented) The computer system of Claim 36 wherein said unloading of said software library comprises

scheduling the unloading of the library implementation module;

setting an associated criteria;

checking whether said set associated criteria has been met; and

unloading the library implementation module if after said associated criteria has been met, said library implementation module is not being referenced by an application or other software module.

38-51 (Cancelled)

52.   (Currently Amended) A computer system for dynamically loading a
software library into memory in a computer, said software capable of being used by
an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a
software library, each library structure including a library implementation module
containing code for implementing the corresponding software library and a library
loader containing entry points corresponding to entry points of the corresponding
software library and code for loading and unloading the corresponding library
implementation module; and

an operating system or other software to perform operations comprising

loading into memory a library implementation module for a software
library containing a library routine, said loading occurring just prior to when said
library routine is to be executed by the application or other software module, said
loading comprising

determining whether the library implementation module is in
memory;

if the library implementation module is not in memory, then loading
the library implementation module; and

if the library implementation module is in memory and scheduled to
be unloaded from memory, then canceling the scheduled unloading of the library
implementation module;

executing the loaded library implementation module for the library
routine being executed; and

scheduling the unloading of the library implementation module <u>after</u>
<u>the execution of the library routine is completed, while keeping the library loader in</u>

memory until completion of the execution application or the other software module, wherein said scheduling the unloading of the library implementation module includes setting a time delay and unloading the library implementation module if after said time delay has been meet, said library implementation module is into in use.

53. (Previously Presented) The computer system as defined in Claim 52 wherein said time delay is fixed.

54. (Previously Presented) The computer system as defined in Claim 52 wherein said time delay is variable.

55. (Currently Amended) A computer system for dynamically loading a software library into memory in a computer, said software capable of being used by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module; and

an operating system or other software to perform operations comprising

loading into memory a library implementation module for a software library containing a library routine, said loading occurring just prior to when said

library routine is to be executed by the application or other software module, said loading comprising

determining whether the library implementation module is in memory;

if the library implementation module is not in memory, then loading the library implementation module; and

if the library implementation module is in memory and scheduled to be unloaded from memory, then canceling the scheduled unloading of the library implementation module;

executing the loaded library implementation module for the library routine being executed; and

scheduling the unloading of the library implementation module after the execution of the library routine is completed, while keeping the library loader in memory until completion of the execution application or the other software module, wherein said scheduling the unloading of the library implementation module includes setting an associated criteria based on system resources and unloading the library implementation module if after said associated criteria has been met, said library implementation module is not in use.

56.   (Currently Amended) A computer system for dynamically loading a software library into memory in a computer, said software capable of being used by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code for implementing the corresponding software library and a library

loader containing entry points corresponding to entry points of the corresponding

software library and code for loading and unloading the corresponding library

implementation module; and

an operating system or other software to perform operations comprising

loading into memory a library implementation module for a software library

containing a library routine, said loading occurring just prior to when said library

routine is to be executed by the application or other software module, said loading

comprising

determining whether the library implementation module is in

memory;

if the library implementation module is not in memory, then loading

the library implementation module; and

if the library implementation module is in memory and scheduled to

be unloaded from memory, then canceling the scheduled unloading of the library

implementation module;

executing the loaded library implementation module for the library

routine being executed; and

scheduling the unloading of the library implementation module after

the execution of the library routine is completed, while keeping the library loader in

memory until completion of the execution application or the other software module,

wherein said scheduling the unloading of the library implementation module

includes setting an associated criteria, unsetting an associated criteria if said

scheduled unloading is cancelled, and resetting the associated criteria if the library

implementation modules is again scheduled for unloading.

57.   (Currently Amended)   A computer system for dynamically loading a software library into memory in a computer, said software capable of being used by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code.for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module; and

an operating system or other software to perform operations comprising

loading into memory a library implementation module for a software library containing a library routine, said loading occurring just prior to when said library routine is to be executed by the application or other software module, said loading comprising

determining whether the library implementation module is in memory;

if the library implementation module is not in memory, then loading the library implementation module; and

if the library implementation module is in memory, then canceling the scheduled unloading of the library implementation module;

executing the loaded library implementation module for the library routine being executed; and

scheduling the unloading of the library implementation module after the execution of the library routine is completed, while keeping the library loader in memory until completion of the execution application or the other software module,

wherein said scheduling the unloading of the library implementation module includes setting an associated criteria, unsetting an associated criteria if said scheduled unloading is cancelled, and resetting the associated criteria if the library implementation modules is again ascheduled for unloading.

58.   (Currently Amended) A computer system for dynamically loading a software library into memory in a computer, said software capable of being used by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module; and

an operating system or other software to perform operations comprising

loading a software library into memory just prior to or contemporaneous with execution of a library routine in said software library; and

unloading said software library from memory after completion of execution of said library routine, wherein said unloading of said software library includes scheduling the unloading of the library implementation module, while keeping the library loader in memory until completion of the execution application or the other software module, setting an associated criteria, checking whether said set associated criteria has been met, and unloading the library implementation module if after said associated criteria as been met, said library implementation module is not in use.

59.   (Currently Amended) A computer-readable medium having stored thereon instructions for causing a computer to perform operations comprising

determining one or more software libraries which are potentially needed during execution of an application or other software module;

loading into memory a library loader for each potentially needed library, said loading occurring after execution of the application or other software module begins but before any library routine of the potentially meeded library is executed by the application or other software module;

loading into memory a library implementation module for a software library containing a library routine, said loading occurring just prior to when said library routine is to be executed by the application or other software module;

executing the loaded library implementation module for the library routine being executed; and

automatically unloading from memory the library implementation module after the execution of the library routine is completed, while keeping the library loader in memory until completion of the application or the other software module, wherein the library implementation module is scheduled to be unloaded from memory.

60.   (Currently Amended) A computer-readable medium having stored thereon instructions for causing a computer to perform operations comprising

determining one or more software libraries which are potentially needed during execution of an application or other software module;

loading into memory a library loader for each potentially needed library, said loading occurring anytime before any library of the potentially needed library is executed by the application or other software module;

loading into memory a library implementation module for a software library containing a library routine, said loading occurring just prior to when said library routine is to be executed by the application or other software module, said loading including determining whether the library implementation modules is in memory, if the library implementation module is not in memory, then loading the library implementation module, and if the library implementation module is in memory and scheduled to be unloaded from memory, then canceling the scheduled unloading of the library implementation module;

executing the loaded library implementation module for the library routine being executed; and

scheduling the unloading of the library implementation module after the execution of the library routine is completed, while keeping the library loader in memory until completion of the execution application or the other software module, wherein said scheduling the unloading of the library implementation module includes setting a time delay and unloading the library implementation module if after said time delay has been met, said library implementation module is not in use.

61.   (Previously Presented) The computer-readable medium as defined in Claim 60 wherein said time delay is fixed.

62.   (Previously Presented) The computer-readable medium as defined in Claim 60 wherein said time delay is variable.

63.   (Currently Amended) A computer system for automatic unloading of a dynamically-loaded software library from memory in a computer, said software library including one or more library routines and capable of being referenced or otherwise invoked by an application or other software module, said computer system comprising:

one or more libraries, each software library containing one or more library routines, each software library having a library loader and a library implementation module, the library loader specifying entry points corresponding to entry points in the software library and the library implementation module containing computer code to implement the software library, the library loader handling unloading the software library;

means for loading into memory a library loader for each potentially needed library, a library loader for a library being loaded by the time the application or other software module executes a routine in that library;

means for loading into memory a library implementation module for a software library, said loading occurring prior to when a library routine of the software library is executed by the application or other software module, said loading handled by the library loader for the software library;

means for determining whether any application or other software module is referencing the software library; and

means for automically unloading the software library from memory <u>after the execution of the library routine is completed, while keeping the library loader in memory until completion of the execution application or the other software module</u> if it is determined that the software library is not being referenced by any

application or other software module, wherein the software library is scheduled to be unloaded automatically without an explicit unload request from the application or other software module.

64.   (Currently Amended) A computer system for automatic unloading of a dynamically-loaded software library from memory in a computer, said software library including one or more library routines and capable of being referenced or otherwise invoked by an application or other software module, said computer system comprising:

one or more libraries, wherein each of the one or more libraries includes a library implementation module containing code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module, each software library the library implementation module containing one or more library routines

means for determining whether any application or other software module is referencing the software library; and

means for automatically unloading the software library from memory after the execution of the library routine is completed, while keeping the library loader in memory until completion of the execution application or the other software module if it is determined that the software library is not being referenced by any application or other software module, wherein the software library is scheduled to be unloaded automatically without an explicit unload request from the application or other software module, wherein said means for automatically unloading the software library comprises means for delaying the unloading of the software library

for a specified delay and means for unloading the software library upon completion of the delay.

65.   (Previously Presented) The computer system as defined in Claim 64, wherein said means for automatically unloading the software library further comprises:

means for determining at completion of the delay whether the software library is being referenced by an application or other software module; and

means for unloading the software module only if the software library is not being referenced by an application or other software mdoule;

66.   (Previously Presented) The computer system as defined in Claim 64 further comprising:

when an application or other software module references or otherwise invokes a routine in a software library, means for determining whether the software library is subject to a delayed unloading; and

if the software library is subject to a delayed unloading means for canceling the delayed unloading.

67.   (Previously Presented) The computer system as defined in Claim 64 wherein said specified delay is a time-based delay.

68.   (Currently Amended) A computer system for automatic unloading of a dynamically-loaded software library from memory in a computer, said software library including one or more library routines and capable of being referenced or

otherwise invoked by an application or other software module, said computer system comprising:

a processor;

a memory;

a disk;

one or more software libraries stored on said disk, wherein each of the one or more software libraries includes ~~including~~ a library implementation module containing a code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and the code for loading and unloading the corresponding library implementation module, ~~each software library~~ the library implementation module containing one or more library routines;

software operated on by said processor to perform operations comprising:

determining whether any application or other software module is referencing the software library; and

automatically unloading the ~~software library~~ library implementation module from memory after the execution of the library routine is completed, while keeping the library loader in memory until completion of the execution application or the other software module if it is determined that the software library is not being referenced by any application or other software module, wherein the software library is scheduled to be unloaded automically without an explicit unload request from the application or other software module.

69.   (Previously Presented) The computer system as defined in Claim 68 wherein said software library is comprised of a library loader and a library

implementation module, the library loader specifying entry points corresponding to entry points in the software library and the library implementation module containing computer code to implement the software library, the library loader handling unloading the software library, said software performing operations comprising:

loading into memory a library loader for each potentially needed library, a library loader for a library being loaded by the time the application or other software module executes a routine in that library; and

loading into memory a library implementation module for a software library, said loading occurring just prior to when a library routine of the software library is executed by the application or other software module, said loading handled by the library loader for the software library.

70.	(Previously Presented) The computer system as defined in claim 68 wherein said automatically unloading the software library comprises delaying the unloading of the software library for a specified delay and unloading the software library upon completion of the delay.

71.	(Previously Presented) The computer system as defined in claim 68, said automatically unloading the software library further comprises

determining at completion of the delay whether the software library is being referenced by an application or other software module; and

unloading the software module only if the software library is not being referenced by an application or other software module;

72. (Previously Presented) The computer system of claim 70 further comprising

when an applicatin or other software module references or otherwise

invokes a routine in a software library, determining whether the software library is

subject to a delayed unloading; and

if the software library is subject to a delayed unloading cnacelling the

delayed unloading.

73. (Previously Presented) The computer system as defined in Claim 70

wherein said specified delay is a time-based delay.

74. (Currently Amended) A computer-readable medium having stored thereon

instructions for causing a computer to perform operations comprising:

loading a software library into memory, wherein the software library

comprises a library implementation module containing code for implementing the

corresponding software library and a library loader containing entry points

corresponding to entry points of the corresponding software library and code for

loading and unloading the corresponding library implementation module; and

automatically unloading said software library library implementation

module from memory after completion of execution of said library routine, while

keeping the library loader in memory until completion of the execution application

or the other software module, wherein the automatically unloading includes [[by]]

delaying the unloading for a delay period and canceling a delayed unloading of a

software library if a library routine of the software library is referenced by an

application or other software module during the delay period.

75.   (Currently Amended) A computer system for dynamically loading a software library into memory in a computer, said software capable of being used by an application or other software module, said computer system comprising:

one or more library structures, each library structure corresponding to a software library, each library structure including a library implementation module containing code for implementing the corresponding software library and a library loader containing entry points corresponding to entry points of the corresponding software library and code for loading and unloading the corresponding library implementation module; and

an operating system or other software operations comprising

determining which libraries are potentially needed during execution of the application or other software module;

loading into memory a library loader for each potentially needed library, said loading occurring after execution of the application or other software module begins but before any library routine of the potentially needed library is executed by the application or other software module;

loading into memory a library implementation module for a software library containing a library routine, said for a software library containing a library routine is to be executed by the application or other software module;

executing the loaded library implementation module for the library routine bieng executed; and

unloading from memory the library implementation module after the execution of the library routine is completed, while keeping the library loader in memory until the execution of the application or the other software module is

completed, wherein the library implementation module is scheduled to be

unloaded automatically.